

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-11 are pending in the present application, Claim 1 having been amended by the present amendment.

In the outstanding Office Action, Claims 1, 3, 4, 5, and 11 were rejected under 35 U.S.C. § 102(b) as anticipated by Arai et al. Claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Arai et al. Claims 6-10 were allowed.

Firstly, Applicant acknowledges with appreciation the indication of allowance for Claims 6-10.

Secondly, Applicant acknowledges with appreciation the courtesy of Examiners Vu and Donghee to conduct an interview for this case on August 10, 2004 during which time the issues in the outstanding Office Action were discussed as substantially summarized here below.

During the interview, as noted on the Interview Summary Sheet, Applicant's representative discussed the invention with regard to the claims and presented arguments against the rejection. Changes were discussed to clarify that the nature of the first jointing material in Claim 1. As presently amended, Claim 1 defines that the first jointing material comprises a metallic material.¹ The Office Action interprets ceramic substrate 320 in Arai et al as a first jointing material.² Arai et al disclose that:

¹ Support for this feature is found in the specification at page 12, line 5.

² Office Action, page 2, lines 18-20.

The first ceramic substrate 301 forming the composite substrate 3 is made of ceramic having, for example, alumina (Al_2O_3) or aluminum nitride (AlN) as a base material.

....
The second ceramic substrate 320 made substantially of the same material as the first ceramic substrate 301 is joined by soldering onto part of the first metal plate 310 which is corresponding to the emitter electrode 310E.³

Accordingly, Applicant respectfully submits that Arai et al do not teach a first jointing material being a metallic material, as both alumina and aluminum nitride are insulators.

In the device shown in Figure 10 of Arai et al, the output terminals of the control devices 5 are connected electrically to the base electrode 310B (see column 6, lines 56-58). If a metallic material were used instead of a ceramic substrate 320 in the device shown in Figure 10, a second metal plate 330 and a copper plate 312 above a first ceramic substrate 301 (i.e., an emitter electrode 310E) would be connected electrically to each other. Therefore, the output terminals of a control device 5 would be connected to both a base electrode 310B and an emitter electrode 310E, which would cause an inconvenience. Therefore, a metallic material cannot be used instead of a ceramic substrate 320 in the device of Arai et al. Consequently, the teachings of Arai et al do not motivate one skilled in the art to change a ceramic substrate 320 to a metallic material.

Thus, for these reasons, it is respectfully submitted independent Claim 1 and each of the claims depending therefrom patentably define over the applied prior art.

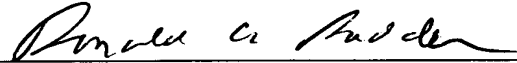
³ Arai et al, col. 6, lines 4-35.

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Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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